

# Overcoming Barriers

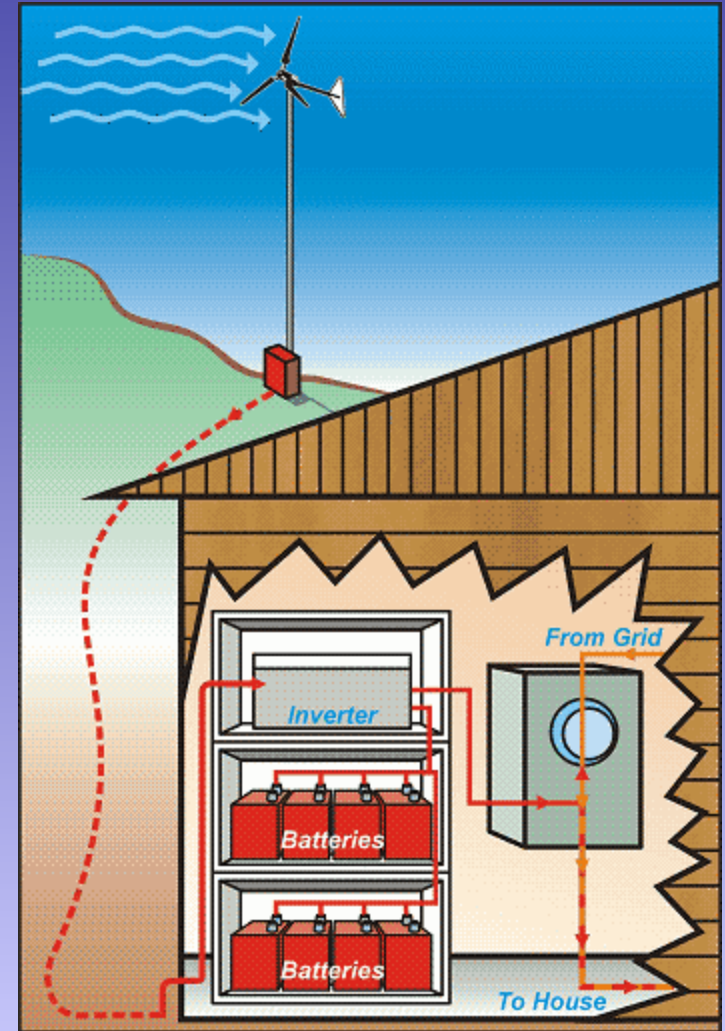
## Grid Interconnection

*Reaching an  
agreement  
with your utility*



# Connecting to the Grid

- PURPA requires utilities to connect with and purchase power from small wind systems
- Reduce consumption of utility-supplied electricity
- Utility acts as a big “battery bank”
- Contact individual utility before connecting to its lines



# Interconnection Requirements

## Safety Issues

- Must meet electrical codes
- Must stop supplying power to grid during power outages

## Power Quality Issues

- Must synchronize with grid
- Must match utility's voltage, frequency, and quality



# Standard Requirements and Contracts

## California net metering law

Limits utility requirements to certification of national safety and power quality standards (UL 1741; IEEE 929-2000, 519, and P1547)

## Utility standard contracts

Tariffs to expedite contracting and interconnection



# Insurance Requirements

***Some utilities require small wind turbine owners to maintain liability insurance of \$1 million or more***

## Policy Responses

- **Eight states prohibit utilities from imposing insurance requirements for qualified systems**
- **Five other states limit required coverage amounts to levels consistent with commercial and residential insurance policies**



***In >20 years, there has never been a small wind system related liability claim***

# Other Requirements

*Utilities may want to be indemnified for liabilities that may arise from operation of a customer's generating facility*

## Policy Responses

- Indemnity provisions should not favor the utility, but should be fair to both parties
- Federal law prohibits utilities from assessing discriminatory charges to customers who have their own generation facilities



*Other charges may include metering, interconnection, or standby fees*

# ***For More Information on Interconnection...***



## **“Connecting a Small-Scale Renewable Energy System to an Electric Transmission System”**

U.S. Department of Energy Reference Brief  
(bibliography) 800-DOE-EREC  
[www.eere.energy.gov/consumerinfo/refbriefs/ja7.html](http://www.eere.energy.gov/consumerinfo/refbriefs/ja7.html)

## **“Connecting to the Grid”**

Interstate Renewable Energy Council  
[www.irecusa.org](http://www.irecusa.org)

